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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,308	09/12/2003	Ligang Lu	YOR920030214US1 (16750)	7831
7590 01/31/2007 STEVEN FISCHMAN, ESQ. SCULLY, SCOTT, MURPHY AND PRESSER 400 GARDEN CITY PLAZA GARDEN CITY, NY 11530			EXAMINER PHILIPPE, GIMS S	
			ART UNIT 2621	PAPER NUMBER

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/31/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/661,308

Applicant(s)

LU ET AL.

Examiner

Gims S. Philippe

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☒ Claim(s) 10-12 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

This is a first office action in response to application no. 10/661,308 filed on September 12 2003 in which claims 1-12 are presented for examination.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2, 4-5 and 7-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Panasupone et al. (US Patent no. 6,647,061).

As per claims 1 and 4, Panasupone discloses the same method for transcoding an input compressed signal stream to an output compressed signal stream comprising down-sampling data elements of signal units of the input compressed signal stream (See Panasupone's Abstract, col. 15, lines 66-67 and col. 16, lines 1-2), and using a joint temporal-spatial rate control to convert the input compressed signal stream to the output compressed signal stream by adjusting the signal unit rate, which is the number of signal units per unit time (See col. 4, lines 29-43 and col. 18, lines 54-61) and the signal unit quantization step size, which is the defined manner in which each signal unit is

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quantized and coded during data compression, simultaneously according to the channel bandwidth, to achieve a quality tradeoff between temporal and spatial resolution for the transcoded output compressed signal stream (col. 7, lines 15-67, and col. 14, lines 38-49). The applicant should note that Panasupone's quantizer 340 of fig. 5B will provide the quantization step size in order to achieve the tradeoff between temporal and spatial resolutions. Also, the quantization step size of the quantization circuit is controlled on the basis of a target bit rate.

As per claims 2 and 5, most of the limitations of these claims have been noted in the above rejection of claims 1 and 4. In addition, Panasupone further discloses down-sampling temporal change vector of the input compressed signal stream (See Panasupone col. 16, lines 39-67 and col. 17, lines 1-10).

As per claim 7, most of the limitations of this claim have been noted in the above rejection of claim 4. In addition, Panasupone further discloses the same method wherein the video streams are compressed pursuant to the MPEG standard within a GOP wherein three types of pictures are distinguished according to the compression method which is used (See Panasupone col. 5, lines 22-29).

As per claims 8-9, most of the limitations of these claims have been noted in the above rejection of claim 4. In addition, Panasupone further transcodes I and P frame while

skipping the B frames that carry less information (See col. 15, lines 48-63 and col. 18, lines 54-62).

Claim Rejections - 35 USC § 103

3. Claims 3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Panasupone et al. (US Patent no. 6647061) in view of Au et al. (US Patent no. 6842483).

Regarding claims 3 and 6, most of the limitations of these claims have been noted in the above rejection of claims 1 and 4.

It is noted that Panasupone is silent about comparing candidate temporal change vectors to select the temporal change vector with the minimum sum of absolute differences as the resulting temporal change vector.

Au et al. discloses comparing candidate temporal change vectors to select the temporal change vector with the minimum sum of absolute differences as the resulting temporal change vector (See Au col. 16, lines 62-67 and col. 17, lines 1-15).

Therefore, it is considered obvious that one skilled in the art at the time of the invention would recognize the advantage of modifying Panasupone's temporal change vector selection to incorporate the step of comparing candidate temporal change vectors to select the temporal change vector with the minimum sum of absolute differences as the resulting temporal change vector. The motivation for performing such

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a modification in Panasupone is to improve the coding performance as taught by Au (See Au col. 17, lines 3-5).

4. Claims 10-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Vetro et al. (US Patent no. 7088780) teaches video transcoder with drift compensation. Kim (US Patent Application Publication no. 2002/0126752 A1) teaches video transcoding apparatus.

Vetro et al. (US Patent Application Publication no. 2003/0016751 A1) teaches video transcoder with spatial resolution reduction.

Nakamura et al. (US Patent no. 7110451) teaches bitstream transcoder.

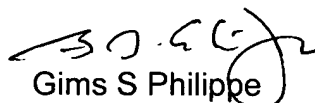
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gims S. Philippe whose telephone number is (571) 272-7336. The examiner can normally be reached on M-F (10:30-7:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dastouri Mehrdad can be reached on (571) 272-7418. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Gims S Philippe
Primary Examiner
Art Unit 2621

GSP

January 26, 2007